

Patent Abstracts of Japan

PUBLICATION NUMBER : 10210734
PUBLICATION DATE : 07-08-98

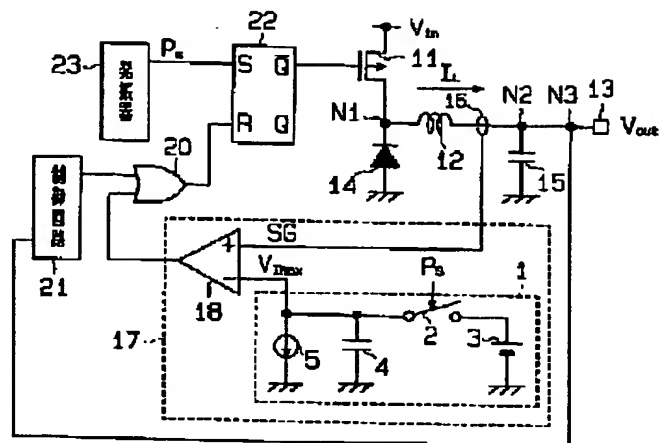
APPLICATION DATE : 21-01-97
APPLICATION NUMBER : 09008788

APPLICANT : TOYOTA AUTOM LOOM WORKS LTD;

INVENTOR : TATEISHI TETSUO;

INT.CL. : H02M 3/155

TITLE : DC-DC CONVERTER



ABSTRACT : PROBLEM TO BE SOLVED: To provide a DC-DC converter which improves the average value of output currents so as to approximate it to the maximum tolerable current value.

SOLUTION: A comparator 18 has both the value of the detection signal SG corresponding to the coil current IL as a detected output current and the reference voltage V_{max} corresponding to the maximum tolerable current value I_{max} of the coil current IL inputted, and compares them. Based on the comparison result from the comparator 18, FF 22 turns on a transistor 11, based on the pulse signal PS when the coil current IL is under the maximum tolerable current value I_{max}, and besides, turns off the transistor 11 when the coil current IL is above the maximum tolerable current value I_{max}. Then, this DC-DC converter is equipped with a triangular wave generating circuit part 1 which raises the above reference voltage V_{max} synchronously with a pulse signal PS and controls it to decrease gradually with a specified quantity of reduction to the input of the next pulse signal PS.

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